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PENSIONS IN PUBLIC EMPLOYMENT

REPORT OF THE PENSION COMMITTEE OF THE NATIONAL MUNICIPAL LEAGUE

PREPARED BY PAUL STUDENSKY

Director of the Bureau of State Research of the New Jersey State Chamber of Commerce

CHAPTER I

MAIN DEFECTS OF EXISTING SYSTEMS

THE pension legislation in this country has been until recent years a bad growth—bad, not in the sense that it has been unnecessary and fundamentally evil (quite on the contrary, it has been very necessary) but in the sense that it has developed along unsound lines. For it is a matter that has a broad public aspect. It vitally affects the public as the consumer of governmental services and as the party that pays the bill; and the public employes who are distressed in the absence of a pension system or benefited by its establishment. Yet it has been allowed until recently to grow up as practically "private legislation."

PRIVATE PENSION LEGISLATION

The government officials, legislators, the large body of public employes and the public have been particularly inert in the matter. As a consequence, here and there small groups of public employes, usually the older men, particularly concerned with their own prospective retirement and lack of resources, have taken the steps before their legislature to secure some legislation that would relieve their anxiety. They were the pioneers in pension legislation, but their pioneering was characterized by a very narrow outlook. They were framing pension bills to suit their own case or that of the particular group of which they were members. They were not concerned with other groups of public employes, the stimulation of efficient service, the economic distribution of costs and the financial soundness of the system which they were seeking to establish.

Having framed a bill that would meet their views of a retirement system, they would look for, and usually find, a legislator, himself unacquainted with the problem, who would be willing

to introduce the bill. The legislators would pass it because of friendship for the sponsor and compassion for the beneficiary or beneficiaries of the measure and often because of political influence. Thus the practically private pension bill would become a law.

NON-CONTRIBUTORY FREE PENSIONS

Sometimes the retirement system established thereby would merely provide for the payment of pensions directly from the public treasury and the expectation would be that the latter would furnish the pensions *ad infinitum*. The expectation is usually far too optimistic. It overlooks some very important facts. In the first place the cost of pensions is very great, — far greater than usually realized. Secondly, the pension payments which the systems must make on account of a definite force are not distributed evenly from year to year. The first payments are usually very small as only few retire in the beginning. The bulk of the payments crowd towards later periods when the present young employes who constitute the bulk of the force become eligible for retirement. When this time comes, which is thirty or more years distant, the annual appropriation for pensions becomes so heavy that the government is often impelled either to curtail the benefits or to reorganize the system at a heavy additional expense or, perhaps, even to discontinue it.

BADLY PLANNED, INSOLVENT PENSION FUNDS

Frequently the system established by such legislation provides for the establishment of a special pension fund in which the revenues necessary to make the future payments could be accumulated and from which all pensions could be paid. Unfortunately the revenues of the fund are fixed arbitrarily without any actuarial estimate as to whether they will be sufficient or not to cover the cost of the benefits promised. They usually are composed of a contribution from the employes of one or two per cent of salary and of miscellaneous revenues from the public treasury such as fees from various licenses and permits covering dogs, revolvers, dancing halls, picture shows, etc., fines, proceeds from condemned property and sometimes a direct appropriation by the government of one or two per cent of salary.

The situation is just as bad as it would be if an insurance company that would contract itself to pay a $1,000 insurance policy would fix the premium at an arbitrary and inadequate rate of, say, one dollar. Neither the company nor the policyholders would know how long it would be able to pay these policies. The state does not allow the insurance companies to-day to operate in such a reckless and blind fashion. Each company must exact premiums which in accordance with the tables of mortality will be sufficient to cover the cost of the policies contracted for and it must set aside annually a certain reserve so that the policyholders who depend on the company's ability to fulfill its contract be well protected against loss. Yet there is nothing on the statute books to-day in various states that would prevent the operation of pension systems that are not founded on an actuarial cost basis and that make greater promises than what they can fulfill.

Of course, the promoters of every such pension fund hope that when its resources give out, an amendment will be secured increasing the revenues or saddling upon the public treasury an obligation to cover any deficit which the fund may develop, and it often

happens when these inevitable contingencies arise, that such amendments are secured. But—and here is a fact which is ignored by the managers of these systems—there is a limit to the financial ability and happy-go-lucky attitude of the administrative official. A day comes when the latter finds that these pension funds with their inadequate reserves, or no reserves at all, and with their constantly increasing drafts on the public treasury are a considerable financial burden. He then makes a move for a reduction of the benefits or other readjustment of the system which is not altogether pleasant to the members of the fund.

Such breakdowns of pension funds have occurred in a number of states and cities. Suffice it to mention the New York City Teachers' Retirement Fund which became bankrupt in 1916 and had to be completely reorganized; the New York City Police Pension Fund, whose annual deficiency amounts to over $2,000,000; and numerous funds in New Jersey. Everywhere, except where the funds have been so recently organized that they did not have the time to develop trouble, breakdowns of the funds have occurred.

INEQUITABLENESS AND CONFUSION OF MANY SYSTEMS

In addition to the financial instability and insolvency of the pension systems, the inequitableness in the provisions of these systems and the inconsistencies and confusion in pension legislation are most startling. Since each group of employes, as stated, has framed and secured its own pension law without regard to other pension laws and to the needs of other classes of employes, a multiplicity of pension laws which widely differ from each other have grown up on the statute books in almost every state. Some of these provide for systems that are contributory, others for those that require no contributions. Some establish a certain rate of contributions or kind of revenues, others another rate and another kind. Some provide benefits of a certain type, amount and under certain conditions. Others provide benefits of another kind, amount and and under other conditions. These differences usually cannot be justified on the basis of any principle, equity or practical consideration. They lead to jealousies, extravagance and demoralization of the service.

GROWING DISSATISFACTION WITH EXISTING SYSTEMS

The financial breakdowns of pension funds, the chaos of pension legislation, the repeated annual processions of various groups of employes before the legislature clamoring for amendments of their existing laws to increase the benefits and grant them the same special privilege that another group secured, or increase the revenues of their system to save it from collapse, or pleading for enactments that would establish a special pension fund for them if they had not been previously provided for,—all this chaos and annoyance, bordering on scandal, has in many states at last attracted the attention of the legislators, administrative officials, broad-minded employes, and the public at large.

EFFORTS TOWARDS REORGANIZATION

The states of Massachusetts, New Jersey, Illinois, New York, Pennsylvania, Ohio, Connecticut, Vermont, Minnesota, Wisconsin, and the cities of New York, Boston, Milwaukee, San Francisco and others have started an effort to cure this evil situation. In each of these states or cities a commis-

sion or committee was created for this purpose consisting either of legislators, or of administrative officials, or of leaders among the employes, or of a mixed nature. Most of these commissions or committees secured actuarial assistance and devised measures for the legislature that would reorganize the whole pension system of their state or city on a sound actuarial basis. The task of these committees was not an easy one, for opposition to reorganization was encountered from those who preferred the old order.

In only very few instances, usually those where only a limited program was adopted by the commissions, have they succeeded in carrying out all their recommendations. Where a comprehensive program was planned usually only a part of it was carried into effect. Thus, for example, in New Jersey, the program adopted by the commission called for the establishment of a sound system for state employes and the reorganization of the system of the teachers and the municipal employes. The actual results were as follows: that part of the program which covered the teachers was adopted by the legislature and carried into effect in 1918; the part covering the state employes did not find its way to the statute books until 1920; while the part covering municipal employes remains unrealized to the present, in spite of strenuous efforts of its friends to have it enacted.

Each of these various investigations has advanced some new principles or methods for the government of the benefits and resources of a sound retirement system. From these principles and methods, which have never been reviewed nor compiled except in the field of teachers' pensions, the committee has selected those which it believes are the best.

UNSOUND RETIREMENT SYSTEM FOR FEDERAL EMPLOYES

Before passing on to the efforts at reorganization, a few words must be said about the unfortunate retirement situation in the federal service. For the same unsound tendencies as are described above, only in a still more magnified form, have developed in that field. For years the administrative branch of the government failed to take an energetic step towards the development of a sound retirement system. For years Congress refused to consider seriously the idea of a retirement system. Finally, the leaders of the employes exasperated by this policy of procrastination on one side and opposition on the other, took the matter into their own hands. They framed a retirement bill which was unsound in almost every respect but well adapted to the prejudices of Congress and of the mass of employes in the matter. The opposition of Congress to expenditures by the government for retirement was appeased by providing that for the first few years all the expenditures for retirement should be met by using the monies supplied by the contributions of the employes. The objections of the employes to contributing were quieted by fixing their contributions at a very low rate—2½ per cent of salary. Few members of Congress, when the bill came before them in 1920, inquired into the future burdens of this system and the soundness of the method by which these burdens were to be met. Most were interested in but one question so far as the financial phases of the proposal were concerned: Will the bill, if enacted, require any large appropriations in the more or less immediate future, or not? Assured that it will not, they lent their support to the measure. The bill was passed and the President gave it his approval.

Thus at last a retirement system has been enacted, but unfortunately one that is not sound. Obligations amounting to hundreds of millions of dollars have been placed on the statute books and charged to the people of this country through the instrumentality of this system without a sound and adequate method for their discharge. One evil situation—the lack of any retirement provision has been cured by the creation of another bad situation in its stead—the establishment of a retirement provision which is deficient in its financial basis.

For, whereas the government needs not to contribute until the fund created by the employes' contributions is exhausted by the annual disbursements for pensions the government will, having once begun to contribute, do so at a rapidly increasing rate and will in the course of time pay manifold for its failure to bear its proper share of the burden in the beginning. It will have to pay for dissipating the monies paid by the employes. These monies should have been set aside and invested for them at interest to constitute reserves for their future benefits, instead of being paid out in benefits to others. The government will have to pay back to the employes the dissipated principal with interest. It will have to pay in large instalments and with heavy interest charges its accrued and normal liabilities for the discharge of which it should have begun to contribute and set aside reserves from the beginning. As there is no correlation under the present system between the benefits offered and the contributions paid, the tendency will be to liberalize the benefits unduly, without considering the costs, with the result that the burdens for the government will be still further increased.

The establishment of a retirement provision for several hundred thousand employes is an undertaking of great magnitude, replete with far-reaching consequences. It is unfortunate that it should have been so mishandled and should have resulted in the enactment of a measure so thoroughly unsound as this one, at a moment when state after state are endeavoring to extricate themselves from the evils of unsound pension legislation.

Years will pass before the unsound financial features of this system will be remedied, if they ever will, for as difficult as the reorganization of pension systems generally is, the difficulties in the reorganization of this system will be multiplied because of its gigantic size and the huge amounts running into millions of dollars which will have to be raised in case of the readjustment of the system, in order to provide for the obligations which are now unduly shifted.

CHAPTER II

PRELIMINARIES OF A SOUND SYSTEM

1. *Need for Retirement Provisions and Their Purpose.*—The establishment for public employes of provisions for old age, or disability, is desirable in order to make possible a humane and effective retirement from the service of the superannuated and disabled and also in order to assure the employes and their dependents a means of support when they are no longer capable of earning a living. The establishment of a retirement system is just as desirable in a well-conducted governmental service and in the employe's own system of living as is the establishment of a proper depreciation account for equipment, plant, etc., in a well-conducted business. For the employe's

earning capacity depreciates and is brought to naught in the long run as he reaches old age or is prematurely disabled. It is not only proper but imperative, therefore, that every year that the employe enjoys his activities and that the employer uses his services a contribution should be made towards the time of this depreciation so that when the time comes the employe could be properly retired.

This principle asserts that two interests are involved in a retirement system: the interest of the service and that of the employe (and his dependents), and that the requirements of each must be fairly met. Very often retirement systems are framed with only one interest in mind—that of the efficiency of the service, or that of the employe, depending on whether the employing authority or the employe is framing the system. This principle, if adopted and laid into the foundation of every retirement system would obviate such one-sidedness. The committee definitely discards in this statement the idea of a pension as a reward for long and faithful service or a gratuity. It places the retirement system on a very definite economic basis as an essential part of a good system of administration of the personnel as well as an important element in a well-conceived system of living for the employe.

Furthermore, it asserts that all classes of public employes ought to be covered by retirement provisions. There is great need for the recognition of this truth. Most of the present systems are founded on the consideration that the particular group, whether it be teachers, or policemen, or another group, is entitled to exclusive or foremost attention of the legislature or administration in the retirement matter. The committee recognized that it may often be impossible to cover at once all the classes of public employes by a retirement provision; that certain groups may have to be singled out as the first to be benefited. But it suggests that at least careful judgment be used in such cases. The present situation in which the bestowing of retirement provisions is determined by the insistence and ability of the particular group to secure the provision, is highly unsatisfactory.

2. *Development of Provisions in Joint Consultation.*—As the retirement question vitally concerns the state, the employing body which is responsible before the community for the maintenance of efficient service and the employes who are responsible for the maintenance of themselves and their dependents throughout their lives, and involves certain mutual responsibilities between them, it is highly desirable that the framing of retirement provisions be carried out in joint consultation between the legislators, the representatives of the employing authorities and the representatives of the employes so that all interests should be equitably taken into account. The representatives of the employing body and the employes should be of the highest caliber. Those of the employes should be selected by their associations and be few in number to permit intelligent round-table conference.

3. *Expert Technical Assistance.*—As the framing of a sound retirement provision involves actuarial calculations of cost of the proposed benefits and other highly technical work, the body vested with the duty of framing the provision should be provided with expert technical assistance including an actuary familiar with the pension problem and other experts.

4. *A State Policy.*—In order that there should be true equity between the various groups of public employes and a sound and firm foundation for their retirement provisions there ought to be enacted into law in every state where pension provisions are in opera-

tion, or are thought desirable, a definite state policy governing the question of retirement. This law should lay down the fundamental provisions which any retirement system should contain and the conditions under which any department of the state or any county or municipality or any one of their departments can establish a retirement system, or can come under the scope of an existing system. This fundamental charter should be sufficiently broad to permit the introduction in the various systems of such variations in detail as may be required by the different conditions to which the systems are applied.

5. *State, County and Municipal Pension Funds.*—The organization of retirement funds should follow broad and natural lines which would make possible the gradual orderly extension of retirement provisions from one subdivision of the service or class of employes to another, and the sound operation of the fund. Within each fund the members should be divided into proper occupational and sex groups so that differences in the benefits, retirement age and the rates of contributions could be established in accordance with the difference in the hazards of their occupation, cost of their benefits, requirements of their service, and other factors.

As a result of the independent action of various groups, it often happens that multiplicity of small pension funds, each covering a certain department or a small local unit, are set up. There can be neither efficient administration nor financial stability under such arrangement. A consolidation of small related units into larger natural units, such as suggested, is highly desirable. All state employes should be grouped into one state fund. The employes of a county into one county fund. Those of a municipality into one, or in case of large municipalities, few funds operated under the same law and centralized authority. The teachers should be grouped into one state-wide fund, except those in the largest municipalities, where a special local fund may be constituted for them without presenting the dangers mentioned. Further considerations may be desirable, uniting, for example, a county and a municipality that are related, into one pension fund unit.

The suggested subdivision of the members within each fund according to occupation works towards equitable arrangement and financial stability. The following is a fair classification: (1) policemen; (2) firemen; (3) mechanics, street cleaners, laborers and other workers engaged upon duties requiring manly physical exertion; (4) clerical, administrative and technical workers engaged upon duties requiring mainly mental exertion; (5) teachers.

CHAPTER III

FINANCIAL STRUCTURE

6. *Actuarial Basis.*—The retirement system should be established and operated on an actuarial basis, *i.e.*, on the basis of tables prepared by actuaries, of the mortality and withdrawals from the service and cost of benefits. Each year throughout the service of each employe, there should be set aside and invested with interest a certain contribution which would accumulate a reserve from which his retirement allowance could be eventually paid.

In other words a retirement system should operate on the basis of statistical and actuar al investigation just as insurance systems do. The actuaries

determine what reserves are necessary at different ages of retirement to make possible the payment of an annuity of $1 to those retired at these ages, to the end of their lives. These reserves are figured as averages for the groups of the same age. Some of those within the same group may live longer than the average time for their group, and draw more in retirement allowances than their reserve, while others may live shorter than the average time and draw less. The deficiences in the former case will be covered from the surpluses in the latter, and the average for the group will hold true. The accumulation of the reserve begins when the employee becomes a member of the retirement system and it ends on his retirement; then the expenditure of his reserve begins. When the employing body promises a certain retirement allowance, the actuaries determine what its obligations on a reserve basis on that account are and what contributions must be paid by it every year to accumulate the reserves that would cover them. If the prospective assets that the fund will realize from these contributions equal the prospective liabilities, the fund is solvent.

Among the advantages of the reserve basis of operation the following may be mentioned:

(1) It is in accord with the policy of "pay as you go." It distributes equitably and economically from year to year the burdens of the supporters of the system and to that extent is sound finance. The employing body bears each year the proper normal share of the total obligations it assumes. Each year the services are rendered it raises the monies covering that part of future pensions which is on account of the services rendered that year; each generation of taxpayers defrays, therefore, its own pension obligation. And similarly the employes, if they contribute, bear each year the proper normal share of obligations they assume. Each year they set aside from their salary the sum of money necessary to cover that share of their future benefit which is on account of that year. The burdens of both the employing body and the employers are levelled throughout years and do not accumulate towards later periods as they do in the absence of a reserve.

(2) It is in accord with the concept of a retirement provision as a charge for depreciation of the employe's forces, for it places a proper portion of the charge on each year responsible for the depreciation.

(3) The cost of the benefit is definitely known with the result that only such benefits are provided as are within the financial abilities of the participants and the possibility of inequitable division of cost, misunderstanding and dissatisfaction is reduced.

(4) The system is maintained in a solvent condition.

(5) The annual cost is reduced by the fact that interest is earned on investment.

7. *Joint Contributory Principle.*—The division of cost of retirement provisions between the employing body and the employes will be generally found more practical and in the long run more satisfactory to both sides, than the placement of the whole burden on either one or the other side. In adopting it, care must be taken that the division be truly co-operative, equitable and sound.

The advantages of the joint contributory principle favored by the committee are many:

(1) It is more economical and practical than the other systems mentioned, as it avoids heavy taxing of either the resources of the employing body or the earnings of the employe and facilitates thereby the establish-

ment and maintenance of so costly an undertaking as the pension system.

(2) It leads to an equitable and desirable readjustment of expenditures of both the employing body and the employe.

(3) It checks, if properly conceived, extravagant demands on the part of the employes as it makes the latter participate in the increase of cost that would result from the grant of such demand; and it fosters, therefore, a steady, sound development of the system.

(4) It calls for the participation of the employes in the management of the system—a feature which helps the harmonious development of the system.

(5) It is in accord with the fundamental philosophy just stated, that both the employing body and the employe are benefited from and interested in the establishment of a retirement system and ought, therefore, to contribute to it.

(6) It is also in accord with the theory that the faculties of the employe are being used up by the industry or service in which he is employed as well as by his own personal pursuits and enjoyments and that, therefore, a joint responsibility rests upon the industry or service and upon the employe for the upbuilding of proper means that would sustain the employe during the time when these faculties shall have been destroyed.

(7) It does not develop, as the other systems do, grievance in one party against the other to the effect that it has to bear the other's responsibilities and burdens.

(8) It leads in the long run to greater mutual satisfaction and cooperation.

The joint contributory principle has been adopted in almost all sound pension systems in this country. The prevailing tendency of these systems is towards arriving in the long run at a more or less equal division of the cost between the employing body and the individual employe. This more or less equal division is applied to the cost of the benefits on account of future services. Accrued liabilities (which arise out of the past services) and the cost of benefits on account of injuries sustained or death occasioned in the performance of duty are usually borne entirely by the employing body. As instances of such arrangements, the systems for the state employes of New York, New Jersey and Massachusetts, the municipal system of New York City and San Francisco and the proposed municipal system of Boston may be mentioned, besides practically all the sound teachers' pension systems of the country. Among the few instances where a different division of cost has been adopted is the system of Chicago, where the city's normal contribution is about 75 per cent higher than that of the employees; the Milwaukee project under which the city is to bear three-fourths of the cost of the policemen's and firemen's superannuation and two-thirds of that of the teachers; and Yonkers' project, where the division is 55 per cent for the city and 45 per cent for the employe.

8. *The Non-Contributory System.*—If the so-called "non-contributory system" is established the cost of the protection which it offers should be clearly determined and brought to the knowledge of the employing body and employe and it should be clearly understood between them that this cost is not borne by the employing body alone but is borne also in part by the employe, for the latter's wages are in the long run depressed by the employing authority that seeks to recover that way from the employe's wage a part of the cost of the old age, disability and death protection towards which it feels the employe should have contributed.

The employing bodies and the employes prefer sometimes the so-called "non-contributory" system under which the employes do not directly contribute and nominally the entire cost is borne by the employing body. The employing authorities that prefer it do so usually for one or more of the following three reasons: They either want to exercise a complete control over the retirement system and realize that if the employes do not contribute, the employes have a lesser claim, if they have any, for participation in that control; or else they want to effect a saving in the cost of administering the system, for the cost of collecting and recording individual contributions is sometimes very considerable. Or they may desire to avoid a controversy with the employes who may object to any other system.

The frequent preference of the employes for it may be explained by the following reasons:

1. The employes who are most interested in the question of protection against old age, disability or deaths are usually the older employes; they naturally regard the retirement allowance as a reward for their long and faithful service; even though they may be willing to contribute, they cannot possibly contribute more than a small portion of the cost of their retirement allowance in the course of the few years left for them to serve; they cannot, therefore, regard very seriously their contributing to their retirement and are naturally inclined to believe that the employer could as well provide their retirement entirely at his expense, without bothering about such a bagatelle as their contribution.

2. The younger employes who constitute the bulk of the entire personnel are usually not interested in the questions of protection against these contingencies, for the latter seems very distant. They could contribute without much hardship a considerable portion of their retirement allowance by setting aside each year a small portion of their wage, but they usually do not care to do so, for they want all their money for the satisfaction of their immediate needs and pleasures. They feel that if the employer is interested in establishing a provision for their old age or disability or death he should do it entirely at his own expense without calling for any contribution on their part.

3. The men or women in their late thirties or forties stand in between the extreme helplessness against these contingencies represented by the first class and the extreme lack of care of the second; they think of their future old age and are still in a position in the course of the 20 or 25 years ahead of them to contribute a respectable portion of their old-age benefits; if they favor a so-called "non-contributory" system they do so because they feel that their money wage is increased to the extent that it permits them to apply to some other purpose the portion which they would have otherwise set aside for foregoing contingencies, in other words that it practically increases their wage.

Granting, therefore, that under some conditions so-called non-contributory systems will be established, the committee argues in favor of an effort to dispell the misunderstandings which often in such cases develop. The employing authorities usually conceive that they are really paying the entire cost of such a system. They tend to exaggerate the value of the benfits they offer and unduly depress the wages on this account. Employes also believe that their employer pays the whole cost of the non-contributory system and do not realize that they are really paying a part of it in the form of

the depressed wage. They tend either to undervalue the benefit and consequently be dissatisfied with the wage to which the benefit is an addition, or else to overestimate it and, consequently, be willing to accept a lower wage on this account than what the circumstances warrant.

The worse of these misunderstandings and inequitable results could be avoided if the cost of the benefit offered were known and an equitable relation of the benefit to the wage were determined and established.

9. *Contribution of Employing Body.*—The accrued liabilities (the liabilities on account of the service rendered prior to the establishment of the system) should be discharged by the employing body on a full reserve or partial reserve basis, so that until they are finally liquidated each year should bear a certain equitable normal proportion of them. Where the setting up of a partial or full reserve is impossible, the employing body should be fully aware that it shifts the burdens of the accrued liabilities upon posterity. The normal contributions of the employing body (the contributions made on account of service rendered subsequent to the establishment of the system) should be made from year to year on a reserve basis. The administrative expenses should be discharged without setting up any reserve.

The advantages of contributing on a reserve basis have been already indicated. It remains to explain the different problems in contributing for the services rendered after the establishment of the system and in contributing for those previously rendered. In the former case the problem is easy. Each year the services are rendered, the employing body contributes on that account. Not so with previous services. No contributions have been made by either the employing body or the employe when they have been rendered. When credit is given for them a deficiency is created in the fund. This deficiency, known as the accrued liabilities, must be covered. It is practically impossible to ask the employes to cover any part of it. The employing body must assume the responsibility for its liquidation. It is impossible for the government to appropriate at once the amount necessary to cover this deficiency, as the latter is usually very considerable, far exceeding the amount of the payroll. The expedient, which is, therefore, considered most practicable is to distribute this deficiency over a certain period of years, say 20, 25 or more, appropriating each year a certain amount so that at the end of this period the deficiency is liquidated and the fund is in possession of all the necessary reserves. This annual contribution is sometimes called a "deficiency contribution" as distinguished from the "normal contribution" which is on account of subsequent service. In some systems, as, for example, in the municipal system of New York City, the deficiency contribution and the normal contribution on account of present employes are merged together; the total liability is estimated and a certain per cent of it, 6 per cent in New York, is appropriated each year so that within a certain period it is liquidated. Practically all sound systems adopt some method for the liquidation of the accrued and future liabilities on a reserve basis. The only exception is the Massachusetts Employes' System.

10. *Contributions of Employes.*—The contributions of each employe should be set aside and invested for him until the time of his retirement, or withdrawal from the fund. They should bear a certain ratio to his salary. Some degree of graduation of the rates of contributions according to the age when the employe begins to contribute

is desirable so that late entrants should pay higher rates and would accumulate thereby in spite of the shorter remaining period of service, a reserve sufficient to provide them with an adequate benefit. The sex and occupations of the employes should also be taken into account in fixing the rates.

The principles expressed in the first and second sentences of this statement are recognized in all the sound systems in this country, but those stated in the remaining part are subjects of controversy. There are sound systems in which the rate of contribution is uniform for all entrance ages. Such is the system for the state employes of Massachusetts where everybody contributes 5 per cent of salary and the systems of Chicago and the proposed Boston system in which the contribution is near 4 or 5 per cent. They are more simple, but present that disadvantage that in case of late entrants the benefit produced is inadequate. Considering that the benefits in case of late entrants should also be adequate, the committee favors some degree of graduation without specifying whether it should involve a different rate for each age or a different rate only for a certain group of ages such as, for example, 20 to 25, 25 to 30, etc. Several systems establish the same rate for both sexes and all occupations. The distinction as to sex and occupation is favored here in view of the difference of mortality peculiar to each and, therefore, cost. Unless a difference in rates is established, the women and other groups with greater longevity either receive smaller benefits or else receive them to some extent at the expense of the groups with a shorter life expectancy or at an additional expense of the employing body.

CHAPTER IV

BENEFITS

11. *Contingencies to be Covered and Distinction Between the Sources of the Benefit.*—A comprehensive retirement system should provide benefits for the following contingencies: old age (superannuation), disability, both ordinary and in performance of duty, death—ordinary and in performance of duty; withdrawal from the service through resignation or dismissal. It is desirable that the retirement allowance should be divided into two distinct benefits: the "annuity" provided by the employe's own accumulated contributions and the "pension" provided by the accumulated contributions of the employing body.

Superannuation is taken care of in all existing systems. But one or the other contingencies mentioned are often ignored. Yet they are of utmost importance. Disability can strike a person at any time; death may leave his dependents, for whom he works, without means; the employe may resign or be dismissed, and ought not lose in such case all the accumulations that have been formed from his and his employer's contributions during his service for, should he incur such a loss every time he changes employment, his protection against the contingencies of old age, disability and death will be seriously impaired if not altogether destroyed. All these contingencies must be equitably provided for.

The distinction as between the sources of the benefits is important because it is quite common for either the employing body or the employes to make exaggerated claims as to the

cost to them of their participation in the retirement system. The employer would claim that he pays so much for the employe's future retirement that he cannot increase his wages as he ought to, or that he must even reduce them; while the employe would claim that he contributes so much towards his future retirement that his wages should be increased. When each side knows exactly, as proposed in the foregoing principle, how much of the pension each pays, there is less room for exaggerated claims and there is more satisfaction. Furthermore, at each proposed amendment of the system the difference of cost that would result to each may be determined, if this distinction is adopted, and proper adjustments in their respective budgets and in the salaries can be made by each side, thus assuring a continued equitable development of the system. In practically all the sound systems this principle is adopted.

12. *Relation of Benefits to Salary and Length of Service.*—Some proportionality, either direct or indirect, or both, between the retirement allowance and the average salary of the employe is desirable so as to assure him a retirement that will not be far removed from his standard of living. The retirement allowance should increase with longer service so as to give recognition to a longer period of usefulness to the employer, of activity on one's own behalf and of contributions and so as to afford an incentive to remain longer in the service. A minimum amount of benefit should be fixed to prevent in any case the falling of benefits below a level under which it is impossible to cover the necessities of life.

That some degree of proportionality to salary and length of service is desirable is generally admitted. The disagreement arises over the extent to which it is desirable. There are three types of proportionality: the direct, the indirect and the combined.

(1) The direct proportionality is obtained when the benefit is fixed as a certain proportion of salary for each year of service.

(2) The indirect, when the benefit is not fixed as a certain proportion of salary and yet eventually any way arrives at some degree of proportionality because of the fact that the contribution from which it is produced is fixed as a proportion to salary and is made for every year of service. There may be two types of indirect proportionality—that derived from a contribution of uniform percentage for all entrance ages, and that derived from a graduated contribution. In the former case the benefit would be proportioned only in the case of early entrants, in the latter in case of all entrants.

(3) The combined, direct and indirect, proportionality is obtained by making the "pension" part of the retirement allowance directly proportional to salary and length of service, but the "annuity" part only indirectly proportional.

There are no sound systems in operation in this country in the public service that are built solely on the first of these three arrangements, for the disadvantages of such an arrangement are generally considered greater than its advantages. The Massachusetts State Employes' System and the systems of Chicago, San Francisco and Milwaukee follow the second method. The Massachusetts system grants such allowance to the employe as a contribution of 10 per cent of salary (five from the employe and five from the state) will provide, thus indirectly assuring proportional benefits. Several systems, including those of New York and New Jersey state employes and New York City municipal employes, follow the mixed arrangement. Thus in the

New York City system the retirement allowance is fixed as follows: (1) An annuity of such amount as the graduated contributions will provide; in the average case the same as the "pension"; (2) a pension of $\frac{1}{170}$ of salary for clerks, $\frac{1}{180}$ for mechanics and $\frac{1}{132}$ for laborers for each year of subsequent service, and $\frac{1}{70}$, $\frac{1}{68}$ and $\frac{1}{66}$ of salary for the three groups respectively for each year of prior service. Thus an allowance of approximately half pay is obtained after 35, 34 and 33 years of service respectively. The New York State Employes' and the New Jersey State Employes' and several other systems and projects also belong to this class.

The principle of proportionality is stated by the committee so broadly as to include any of these types, each of which presents certain advantages.

13. *Age the Proper Basis for Retirement.*—Retirement should be based primarily on age and only secondarily, if at all, on length of service. There should be a minimum age after which retirement is permissible and a maximum age after which retirement is compulsory and which could be extended only upon proof of special fitness. The minimum age should be so fixed as to result in neither too premature, nor too late retirements. Sufficient margin between the maximum and the minimum should be fixed so as to allow for the variations in the time when one or another employe may become superannuated and permit the employe and his superior to exercise sufficient discretion as to the time of his retirement.

In the old days, retirement was based on length of service because the pension was conceived as a reward for long and faithful service. But to-day the tendency is to base it on age because the pension is increasingly regarded as a means of protection against old age. Furthermore, the "length of service" basis does not work out to-day as well as it did years ago, because the employment becomes increasingly mobile, men change the service much more frequently and enter the employment from which they eventually retire, often at a late age. An employe who entered the service early will complete the required 20, 25 or 30 years of service at the age of 40, 45 or 50. He will qualify for retirement while still a young man. The retirement of the young is undesirable from the point of view of efficiency of service and unnecessary from the point of view of the employe and it is very costly because of the considerable life expectancy of the young. And on the other hand the man who entered the service late will qualify for retirement only at a late age. It is, therefore, more practicable to fix a certain age for retirement either without any qualification as to length of service or only with a slight qualification, such as, for example, a minimum of 10 years of service in addition to the required age. Most of the sound systems of to-day follow this practice. The ages fixed by the New York City System are suggestive of a good age arrangement: laborers 58, mechanics 59, clerks 60. For policemen and firemen age 57 was proposed.

14. *Ordinary Disability.*—Retirement for ordinary disability should be allowed irrespective of the age of the employe and after a comparatively short period of service. The scale of benefits should be so fixed as to provide benefits which would in all cases be adequate and yet not as large as the benefits which he would receive if he continued in the service until superannuation. Impartial and expert medical examination prior to the granting of retirement as well as periodical reexaminations after retirement should be assured and, in case disability is found to have reduced or altogether ceased, the reduction or discontinuance

of the allowance and restoration of the employe to service should be made possible.

15. *Disability in Performance of Duty.*—Retirement for disability incurred in performance of duty should be allowed irrespective of the length of service. It should be compensated by the employing body, more liberally than ordinary disability or superannuation, since the responsibility for the disability rests principally upon the service. Its "pension" part should be paid from a special fund, as it represents a special hazard. Strict safeguards, such as are mentioned in the preceding section and others, must be provided to prevent abuse. Where an employe is also covered by a workmen's compensation act, choice should be allowed him between the benefit under one or the other system.

16. *Ordinary Death.*—In case of ordinary death the employe's contribution together with compound interest should be returned to his legal representatives. An additional death benefit to the widow or the children of a lump sum equal to one or two years' salary and provided either entirely at the expense of the employing body or jointly with the employe is desirable.

A refund of contributions is a minimum of what should be done in a sound system. An additional benefit adds much to the attractiveness of the system. The New York City Municipal System provides such an additional death benefit, fixing it at one half of a year's salary. San Francisco does likewise. Chicago and Milwaukee go still further in this matter and provide considerable annuities to the widow.

17. *Death Caused in Performance of Duty.*—In case of death caused in performance of duty the payment of an adequate pension to the dependents in addition to the payment of the employe's own accumulation (or an annuity provided thereby) is advisable, as the responsibility for the death rests upon the service. The pension should be paid by the employing body from the same fund from which the pension for disability in performance of duty is paid.

These principles are supported by the features of most of the sound systems. In the system of New York State and New York City the widow and children are allowed a pension of half pay in addition to a refund of the contributions of the deceased.

18. *Resignation and Dismissals.*—In case of resignation or dismissal the employe's contributions with compound interest should be refunded to him.

The benefit required in this statement is a minimum of what should be done. Some systems have gone beyond this and provide also for a refund or credit, for annuity purposes, of all or part of the employer's contribution made toward superannuation with interest after a certain length of service.[1]

19. *The inclusion of optional benefits is highly desirable, because it increases the elasticity of the system and makes the benefits more adaptable to individual conditions.*—Most of the sound systems allow the member at the time of retirement to choose to take a smaller allowance with the proviso that a balance of his reserve or a similar allowance or a half of that allowance shall be paid to his dependents after death. A person who has no dependents will not avail himself of this option and will take his entire allowance. But a person with dependents will avail himself of it and will find it of considerable comfort.

[1] See New York City, Chicago and Milwaukee systems. Ch. VII.

CHAPTER V

ESTABLISHMENT, ADMINISTRATION AND MEMBERSHIP

20. *Establishment of the System.*—To avoid delay due to apathy of public officials and employes, the establishment of the retirement systems should be made, wherever possible, mandatory. Where, especially in cases of counties and municipalities, a provision of such nature would be too drastic, the establishment can be made optional. In such case an equitable participation should be assured to the employing body and the employes in the determination of whether or not the retirement system should be established at the time. And proper actuarial and other information as to the burdens involved for each side should be presented to them before the system is finally established.

Little need to be added here. The provision in the proposed New Jersey municipal plan may illustrate the suggested practice. It is provided there that in case two thirds of the employes of any department of any municipality not now having a pension fund shall at any time signify in writing their desire for the establishment of a retirement system, then the governing body of the municipality shall secure an actuarial estimate of the liabilities involved in such system, publish the estimate, submit the question as to the desirability of the establishment of the system to a referendum vote at the next election, and if the majority votes in the affirmative, establish the system. A similar practice is to be followed in case of the extension of the system to other departments. The provision proposed in New York (see Ch. VIII) is illustrative of a more radical procedure.

21. *Membership.*—Membership in the system should be made compulsory for all new entrants. In case of employes already in the service at the time of establishment of the system one of the following solutions may be adopted, according to circumstances:

1. Membership can be made compulsory for them.

2. It can be made optional by allowing the employes a certain time within which to file a notification that they *do not want* to become members, and making members all those who did not file the notification.

3. It can be made optional by allowing the employes a certain time within which to file an application *to become a member*, and making members only those who filed the application.

22. *Administration.*—The administration of the system should be vested in (1) a board of trustees consisting of representatives of the employing body and elected representatives of the membership of the system and (2) an executive director. The representation in the board should be preferably equal between the two sides and be supplemented by a neutral member of high standing. But where public moneys are involved to a far greater extent than the employe's contributions a slight preponderance to the employing side in the matter of representation may be advisable. Too much emphasis cannot be placed on the fact that the duty of the board should be primarily policy determining and that the director should have a broad scope of power and be a man thoroughly in sympathy with the fundamental principles of the system. Proper actuarial assistance to the board should be provided.

The principle of representation of the employes on the board of management of the pension fund is recognized in most of the sound pension systems. Among the few exceptions to this rule are the systems of the New York State employes and the New York City

employes, where the management is entirely in the hands of the employing body. Among the arguments in favor of such representation, two may be mentioned: (1) It is only proper that persons who contribute money should exercise a voice over the usage made of these monies and (2) the interest of the employes in a retirement system is bound to be stimulated by such representatives. Important is the emphasis which the committee places on the high qualifications which the management of the system must possess. For the soundness of the system depends on good management just as much as it does on the scientific planning of the system. It is futile to write a good pension law if its enforcement is to be vested as it is often done, in the hands of men who belong to the old pension school and who disapprove of the scientific methods of operations prescribed by the law.

23. *Periodical Actuarial Valuations.*—The retirement system should be periodically valued by an actuary, so that the true mortality and withdrawal experience of the particular service could be obtained and any changes in it registered, the adequacy of the funds ascertained and timely adjustments in the contributions or benefits made.

The only point open to controversy here is whether or not the contributions of the employes (and their purchasing power or annuity values) should also be adjusted from time to time, just as those of the employing body, according to changes in the mortality, etc., or not. The committee holds that it is to the advantage of the employes that such adjustments should be made and that the mutual features of the system are thereby strengthened.

24. *Central Technical Advice.*—The establishment of some central technical agency in the state to help the sound operation of the various retirement systems is desirable. This agency established as a separate department or incorporated in the state insurance department could receive from the various funds reports of their operation, develop the true mortality and withdrawal experience of the various branches of the public service in the state which is necessary for the sound operation of the systems, supply technical information, value such retirement funds and also operate for such small funds as cannot lead an entirely independent financial existence, some system of reinsurance.

It does not suffice to place a law establishing a sound state pension policy on the statute books. It is necessary to assure that the huge complicated system created thereby should properly operate and harmoniously develop. For this purpose, a central supervisory agency is suggested. This proposal is outlined in detail in a bill introduced in New Jersey and is described as follows:

> To protect the small funds against any unforeseen heavy hazards, the proposed bill requires all funds having less than one hundred members to reinsure themselves in the Reinsurance Fund, which will be specially created for this purpose under the supervision of the state. This feature is similar to the reinsurance feature now operating in some states in connection with the Employers' Liability Law.
>
> All the funds will operate under the supervision of the State Pension Committee, which will prescribe standards of solvency, interpret the law, examine the operation of the funds and take care that a uniform and sound pension policy in this state is preserved and due improvements in the funds introduced. The funds will be valued by an actuary approved by the State Pension Commission, so that their financial condition will at all times be known and their solvency maintained. In a word, the State Pension Commission will function with respect to pension funds in a similar manner as a state insurance department functions with respect to insurance companies and fraternal organizations. Just as the insurance departments have greatly helped to stabilize the insurance affairs in every state in which they have been established, so will a state pension department stabilize pension affairs. Sooner or later every state in which pension funds operate must adopt some scheme of central supervision, for the present pension chaos cannot be long endured; it threatens with disaster.

A similar proposal has been recently made by the New York State Reconstruction Commission, which urged in its report the establishment in the executive department in the proposed bureau of administration of a special pension division composed of an expert pension and actuarial staff which would perform the following functions with respect to state, county, and municipal pensions: Supply information to the legislature, and local authorities, collect pensions, make actuarial valuation of funds and calculate rates of contributions, prepare annual reports on the pension situation and ultimately supervise the operation of state and local funds with a view to enforce sound standards. The Illinois Pension Commission has also incorporated in its bill the same thought.

CHAPTER VI

TREATMENT OF UNSOUND SYSTEMS

25. *Check on Unsound Legislation.*—There should be no further enactments of retirement projects which are not founded upon an actuarial basis and which are in discord with the main provisions of the sound policy adopted.

The principle suggested here cannot be enacted into law, as one legislature cannot bind another. But its adoption by each legislature as a guiding thought and sound though not statutory rule is within the bounds of possibility. If a few fundamental laws covering the entire public service are enacted and such central agency as suggested is established, this practice would be a natural development.

26. *Preventing Establishment of New Unsound Funds.*—The establishment of new pension funds under the unsound laws which had not been repealed should be prohibited. All new funds should be established under the new law.

27. *Reorganizing Existing Unsound Funds.*—The existing unsound pension funds should be reorganized or abolished. This may be accomplished by different methods, each possessing certain advantages, which are substantially as follows:

1. The law may be amended so as to correct the most flagrant defects of the fund and gradually bring it into conformity with the requirements of a sound policy, or

2. Provision may be made inducing the members of the unsound fund voluntarily to transfer to the new sound fund and compelling all new employes to belong to the latter, so that gradually the old fund would be liquidated, or

3. The old fund may at once be abolished, in view of its unsoundness, and all its members transferred to the new fund established under the new law.

In no case upon liquidation of an old retirement system should there be any reduction in the pensions already granted at the time of establishment of the new system. If no sufficient funds for their payment are left from the old system, the employing body should make the necessary additional appropriations from year to year as long as the pensioners live.

CHAPTER VII

SOUND SYSTEMS IN OPERATION

Leaving aside the sound retirement systems for teachers, which are treated fully in other works, there are seven systems which need be described here. These are the state system of Massachusetts,—the earliest sound system in this country, established in 1911, that of New York, enacted in 1920, and that of New Jersey in 1921; and the municipal system of New York, operating since 1920, that of Chicago and that of San Francisco, established in 1922, and that of Milwaukee which became also effective in the latter year, but so far only in application to policemen.

There is still one more system—the permissive act of Massachusetts applying to municipalities. It is, however, practically identical with the state system and furthermore only one city, that of Salem, apparently took advantage of it. It need not, therefore, be discussed separately.

The retirement system for federal employes, though only recently established (1920) cannot be discussed here. It does not belong to the class of sound systems, for practically the only sound feature in it is that which provides for an actuarial board to make valuations of the system.

Of the seven systems mentioned, three—those of Massachusetts, Chicago and Milwaukee—are based on contributions of the same percentage rate for entrants of all ages and provide just what the accumulation from the contributions of the employees and the employing body will provide. Three systems,—those of New York State, New York City and New Jersey graduate the rate of contributions according to entrance age and are mixed systems on one hand giving the employe an equivalent of his accumulations, on the other guaranteeing him from the contributions of the employing body a pension of a certain proportion of salary for each year of service. The San Francisco system stands in between these two groups, fixing the regular pension according to accumulations from the contributions of the employing body, as the systems in the first group do, while on the other hand graduating the rates of contributions and fixing the prior service pensions as a certain proportion of salary, as it is done by the systems in the second group.

1. *Massachusetts State Employes*

The retirement system covering the Massachusetts State Employes was established under the act of 1911. It covers practically the entire service and calls for contributions from both the state and the employes, whereas formerly only certain branches of the service were covered and no contributions from the employes were exacted. Membership in the system is compulsory for new entrants and optional for those in the service at the time the system was established.

The employes in the service prior to June 1, 1918, are required to contribute 3 per cent and are allowed to contribute up to 5 per cent. Those employed since that date are required to contribute 5 per cent. No one is allowed to contribute more than on the basis of a salary of $30 per week ($1,560 per year). This contribution is credited to the employe's account with interest at 3 per cent and provides for him at retirement an annuity according to his age and on the basis of the American Experience Mortality Table. The state provides a pension equal to the annuity and in case of men who have prior service (prior to June 1, 1912) an extra pension as large as the double of his contribution paid throughout would have constituted. In other words, both his annuity and pension for the prior service are made up at the expense of the state, and there is a further provision by which the total allowance must in no case be less than $300 per year nor more than half pay.

Retirement is allowed at the age of 60, provided the employe had 15 years of service, or at the age of 70 irrespective of service, or after 35 years of service irrespective of age; or in case of disability after 15 years of service. In case of withdrawal from the service through resignation or dismissal, or in case of death before retirement, the employe or his dependents are entitled to his contributions with regular interest.

The administration of the system is in the hands of a board composed of the state treasurer, a person elected by the members of the system and a third person selected by the two.

2. *New Jersey State Employes*

The law establishing this system was enacted in 1921. It covers the entire state service. Membership in it is compulsory with new entrants and optional with present employes and is divided into two large groups, laborers and clerks, with further sub-division according to sex.

Retirement is allowed at 60 and is covered by a retirement allowance of approximately $\frac{1}{70}$ of the average salary of the last five years for each year of service. It consists of an annuity such as the employes' contributions will provide and amounting at the above age to one half of the foregoing fraction in case of average advancement of salary for all future service, and of a pension from the state furnishing the other half for future service and the whole fraction for the prior service.

Ordinary disability is recognized for retirement after 10 years of service and the allowance is composed of a pension of 20 per cent of salary plus the annuity with a proviso that the total must not exceed 90 per cent of the allowance which the employe would have received had he continued in the service to the age of 60. Accidental disability is covered by a pension of two thirds of the salary plus the annuity and accidental death by a pension to the widow or children of half pay plus a refund of his contribution with interest.

In case of resignation, dismissal or ordinary death the contributions of the employe are refunded to him with interest. The usual optional benefits are provided on retirement.

The members are to contribute according to their age, sex and occupation as follows:

Clerks, men, from 4.06% to 7.15% of salary
Clerks, women, from 4.35% to 7.84% of salary
Laborers, men, from 3.53% to 7.07% of salary
Laborers, women, from 3.65% to 7.38% of salary

The state is to contribute from 2 to 2½ per cent of salary on account of future service, and in addition discharge on a reserve basis in the course of 25 years all accrued liabilities.

The system is to be managed by a board consisting of two trustees to be appointed by the governor, two elected by the members and the state treasurer.

3. *New York State Employes*

This system was established under a law enacted in 1920. It covers all employes except those covered by existing pension laws such as hospital employes.

Membership in it is compulsory for all new entrants and optional with present employes and is divided into five groups: male clerical, administrative, professional and technical; female clerical, etc.; mechanics and laborers; male employes of state institutions; female employes of state institutions.

The conditions of retirement and scale of benefits is the same as that of the New Jersey system.

Disability is recognized after 15 years of service and is covered by an allowance of 90 per cent of the superannuation scale with a minimum of 25 per cent of salary, the pension from the state supplying the difference between the annuity and the allowance. No special provision is made for disability in performance of duty or for death in performance of duty. In case of resignation, dismissal or death, the contributions of the employe are returned with interest. Optional benefits are offered on retirement; and proper safeguards are provided against abuse of disability retirement.

The employes contribute according to their age and group such a rate as would provide in case of average advancement the proportion of the benefits mentioned. The rate ranges as follows:

Male, clerical, from 4.29% to 7.24%
Female, clerical, from 4.83% to 8.13%
Male, institutional, from 3.84% to 7.24%
Female, institutional, from 4.32% to 8.13%
Laborers, from 3.42% to 7.07%

The state will contribute 1.15 per cent for future service and 2.37 per cent for prior service. The latter contribution will have to be made only for about 30 years.

The system will be managed by the state comptroller.

4. New York City Municipal Employes

The New York City Employes' Retirement System was established under a law enacted in 1920. It covers all municipal employes not covered by the various special departmental funds, such as those of the police, fire, teachers, Hunters College, street cleaners and department of health.

Membership in the system is compulsory for all new entrants and optional for present employes and is divided into the following three groups: laborers and unskilled manual workers; mechanics and skilled workers engaged upon duties requiring principally physical exertion; and clerical, administrative, professional and technical workers.

Retirement is optional for the first group at the age of 58, for the second at 59 and for the third at 60, and is compulsory for all at 70. The retirement allowance will average $\frac{1}{86}$ of the average salary of the last ten years for the first group, $\frac{1}{68}$ for the second and $\frac{1}{70}$ for the third. In other words, approximately half pay would be provided in the first case after 33 years, in the second after 34 and in the third after 35. The allowance consists of such annuity as the contributions of members will purchase and which in the average case at the retiring age will amount to one half of the fractions just mentioned for all future service; and of a pension provided by the city and constituting the other half of these fractions for all subsequent service and the whole of them for all prior service.

The benefit for ordinary disability is granted after 10 years of service and is somewhat complicated. In addition to the annuity of such amount as the employes' contributions will provide at the time of retirement, a pension is given which will bring the total allowance up to 90 per cent of the $\frac{1}{86}$, $\frac{1}{68}$ and $\frac{1}{70}$ fractions; if the allowance so produced is less than 25 per cent of salary then additional salary fractions will be provided for each year which separates the employe from his regular retirement, not to exceed, however, 25 per cent of salary.

Allowances for disability in performance of duty are granted any time and consist in addition to the annuity, of a pension of three fourths pay. Various safeguards are provided for the re-examination and restoration to service of retired men whose disability has ceased. In case of ordinary death the contributions of the employe with compound interest are refunded to the legal representatives of the deceased and in addition a lump-sum benefit of one half of the year's salary is given. In case of death in performance of duty a pension of half pay is provided to the dependents in addition to a refund of the contributions of the deceased with compound interest.

The employe who resigns or is dismissed before retirement receives his contributions with interest. In addition the dismissed employe receives a refund of the employer's contributions figured as the present value of a pension, deferred to age 60, of $\frac{1}{170}$ of his salary for each year of his service. Various optional benefits which are offered in the best systems are allowed on retirement. The system is managed by the board of estimate and apportionment.

The employes contribute according to their group, sex and age, from about $3\frac{3}{4}$ per cent to about 6 per cent of salary. The city's contribution consists of several elements, each of which defrays a different benefit. It discharges all its liabilities, accrued as well as future, on a reserve basis.

5. Milwaukee

This system was established under an act of 1921. The act provided for the establishment of a general city system covering all the departments, but it made its establishment contingent on the approval by the common council of the city. For more than a year the council withheld its approval because of the great costs which the city would have to bear under the system. Finally, in 1922, it approved the application of the law to the policemen, but refused to apply it to the other groups of employes. Thus the act became only partly affective.

The law contemplates the establishment of four funds, three to cover the teachers, policemen and firemen and the fourth all others. Each fund is to be managed by a board composed of three representatives of the employes and two of the city; and a central commission is to supervise them all. Unlike in the Massachusetts and other systems, the employing body is to contribute a much greater share of cost than the employe and the contribution of the latter consists of several elements. For superannuation the employe is to contribute 3 per cent of his salary and the city 9 per cent in case of a policeman or fireman and 6 per cent in case of others. For annuities to widows in case of ordinary death the employe is to pay 1 per cent and the city $2\frac{1}{2}$ per cent and 2 per cent for the uniformed and ununiformed classes respectively. Ordinary dis-

ability is to be covered by a contribution of one-half per cent each from the employe and from the city, and administrative expenses by one eighth of a per cent from each. Disability and death in performance of duty and children's benefits are to be paid entirely by the city.

To summarize, men would contribute about 4.6 per cent and women 3.6 per cent while the city would pay 13.75 per cent for policemen and firemen, 9.75 per cent for other male employes and 7.50 per cent for women, in addition to accident and children's benefits, pensions granted under the old laws and contributions, at the rate of 9 and 6 per cent, for all prior years of service of its present employes, with compound interest. These past contributions, estimated at almost $9,000,000, are to be raised by means of equal annual instalments during a period of 40 years. The obligation under the existing pension roll is also to be liquidated by means of equal annual instalments during the same period. It would appear that the total contributions of the city on account of all the items would exceed in the police and fire funds 20 per cent of the payroll during the initial period.

Retirement is allowed on superannuation at the age of 57 for policemen and firemen and at 65 for other employes, provided the employe has rendered 15 years of service; or before that time in case of ordinary or accidental disability. The benefits are as follows: In case of superannuation an annuity of such amount as the accumulations will provide; in case of ordinary disability (including sickness of more than 15 days' duration), an annuity of half pay but payable only for a short time, maximum one-fourth of the time of his total service and in no case more than five years, substituted thereafter by such annuity as the accumulations will provide; and in case of accidental disability an annuity of 55 per cent of the salary payable until superannuation, and substituted then by an annuity depending on the accumulations. While the annuity of 50 or 55 per cent is paid the employe and the city continue to contribute so as to swell his eventual accumulations.

The widow is to receive an annuity purchased by the combined contribution of 3 or 3½ per cent. If the death occurs before retirement she is entitled to an additional annuity from the contributions of 6 or 9 per cent made by and on behalf of the employe for his regular retirement, provided that the total annuity does not exceed the one to which she could have been entitled had he lived until regular retirement. In case of death in performance of duty the widow is to receive such an annuity as she would have received had her husband lived until regular retirement.

In case of resignation or dismissal the employe is entitled to his own contribution with interest, and if he has rendered 10 years of service or more and has left his contribution in the fund he receives also a credit for one-tenth fraction of the accumulation from the city's contributions for each year of service above 10 and is entitled at superannuation to an annuity on that basis. In other words an employe who rendered 20 years of service will preserve all his credits, although he has resigned or has been dismissed. All annuities are computed on the basis of the American Experience Table.

6. *Chicago.*

This system was established under an act of 1921 and is an outgrowth of the work of the Illinois Pension Laws Commission. It resembles in many of its features the Milwaukee system.

The fund established thereby covers all municipal employees except policemen, firemen and teachers. Each employee is to contribute 3¼% of his salary for superannuation, an additional 1% for widow's benefits and two assessments (equally apportioned among all members) the amounts of which may vary from year to year—one to cover one half of the cost of the ordinary disability benefits, the other to cover one half of the cost of administering the system. The total contribution of the employee will approximate 5%. But only that portion of salary is taken into account which is below $3000.

The city is to pay 5¾% of salary for superannuation, 1¾% for widow's benefits, the same assessments for ordinary disability and administrative expense as the employees will pay, the total cost of benefits for disability and death caused in performance of duty and the total cost of children's annuities. The aggregate of these normal contributions will probably exceed 9% of the salaries. In addition, the city will pay whatever is necessary to make up a contribution of 8⅓% of salary (5¾% for superannuation and 2¾% for widow's benefits) for each year of prior service of each employee. It will pay this contribution not on the basis of the salary actually received by the employee during his past service, but on the basis of the salary received by him at the time of establishment of the system. Con-

sidering the large general increases of salaries which have been made in recent years (besides the ordinary individual advancement in salary) it seems likely that this contribution will yield to the employee perhaps twice as much as a similar contribution made on the basis of salaries actually received by him would have yielded. The city will also pay all pensions granted from the fund established under the act of 1911 and furthermore contribute enough to give every member who belonged to that fund credit in the new fund for all contributions paid by him to the former, with 4% compound interest.

From the accumulations built from these various contributions annuities will be paid to the employees on retirement after 55 years of age, except that the employees who have not reached the age of 60 receive the full benefit of the city's contribution only if they had 20 years of service to their credit. They lose one tenth of that credit for every year that their service falls short of twenty, thus receiving after 10 years of service or less only the benefit of their own accumulations.

A similar arrangement as to credit for the city's contributions is followed in case of resignation, dismissal or death before 55 years of age. If the resigning or dismissed employee does not withdraw his monies he can claim after reaching fifty-five years of age, if he had more than 10 years of service, an annuity not only from his own accumulations but also from $\frac{1}{10}$ of the city's accumulations for each year of service over ten, i. e. from the full amount if he served 20 years or more. And similarly in case of death, the widow is entitled to an annuity not only from the accumulations of the deceased but also from one tenth of the city's accumulations for every year of service of the deceased in excess of ten, i. e. from the full amount after a service of twenty years.

Ordinary disability benefits are paid at any time. First a temporary annuity is paid of half pay as in Milwaukee. It is paid from the special assessments mentioned above and continues for a maximum period of $\frac{1}{4}$ of the period of service of the employee and not for more than five years. None of the accumulations credited to the employee are used for this purpose. In fact the accumulations continue to grow, the same contributions being deducted from his annuity and the same contributions being made by the city as had been paid by the employee and by the city when he was in active service. If at the expiration of the period mentioned the employee is still disabled, he receives the regular annuity from his and the city's accumulations instead of the half pay annuity the payment of which then ceases.

In case of disability in performance of duty and death in performance of duty the benefits are paid entirely at the expense of the city until the time the disabled reaches the age of 65 or, in case of death, until the time the deceased would have reached that age had he lived. They amount to 75 per cent of salary in case of disability and 60 % in case of death. While paying these benefits the city also pays each year to the fund for itself and for the employee the regular contribution so that the accumulations of the disabled or those for the widow of the deceased grow just as if he was still in active service and in the latter case, still alive. When the time mentioned is reached, this annuity ceases and instead the regular annuity from the accumulations standing to the credit of the employee or of the widow is paid to the disabled or the widow.

In addition to these benefits children under 18 years of age are paid annuities at the rate of $10 a month, if the remaining parent is living, and $20 a month if she, too, is dead, up to a certain maximum.

If the employee dies before retirement, his accumulations from his contributions are added to those made for the widow's benefit, and she receives a larger annuity but one not in excess of that which she would have received had he lived until 55 years of age and entered on annuity. If the employee has no wife at the time of retirement or on reaching the age of 65 he receives back all that was contributed by him for widow's purposes, with compound interest.

The benefit provisions of the system are quite complicated and there are many features and qualifications in it which cannot be mentioned here. All annuities are computed on the basis of the American Experience Mortality tables. In other words no difference of cost is recognized as between the benefits of men and women and the same annuities are paid to both for every dollar of accumulation.

The old fund established under the act of 1911 is merged in the new. The city is to contribute each year $600,000 to pay the prior service annuities and the pensions granted under the old act and the other items which constitute the accrued liabilities of the system. This contribution is to cease when the assets accumulated therefrom are equal to the prior service liabilities.

7. San Francisco.

As the cities of California enjoy broad powers of home rule, the Legislative procedure establishing this system was very different from that which brought the other systems here described into existence. A committee of two men, appointed by the Mayor in 1920 drafted an amendment to the City charter providing for the establishment of a sound retirement system for the employees not covered by any pension provision, outlining briefly the fundamentals of the plan and creating an administrative board whose duty it would be to secure the necessary actuarial and other technical advice and to evolve the details of the system. After approval by the Board of Supervisors the amendment was submitted to a referendum of the voters and ratified by them and was presented to the Legislature which enacted it in January 1921. Then the Administrative Board was organized, an actuarial investigation undertaken and detailed provision of the systems were evolved. These were then submitted to the Board of Supervisors which enacted them as a city ordinance on February 6, 1922.

The system covers all employees of the city and county except policemen, firemen and teachers. Membership in the system is compulsory for present employees as well as new entrants. The plan has been drawn very closely along the lines of the system for the New York City employees. Retirement is to take place on superannuation at the age of 62, or in case of completion of 30 years of service, at the age of 60. Disability retirements are allowed any time after 20 years of service.

The employee is to receive on retirement on superannuation an annuity from his accumulations, a pension equal to the annuity and an additional pension of $1\frac{1}{3}\%$ of salary for each year of prior service. The rates of contributions are so fixed that in case of average advancement of salary and retirement at age 62, the annuity and regular pension should each be one half of the following salary fractions: $1\frac{1}{3}\%$ for each year of service for men and about $1\frac{1}{6}\%$ (1.72%) for women. In other words a man in the instance mentioned would obtain a retirement allowance of about half pay after $37\frac{1}{2}$ years of service, whereas a woman would obtain it after about 43 years of service.

This disability allowance is the same as that of the New York City system, except for a difference in the salary fraction which is $1\frac{1}{4}\%$ here.

The employee's accumulations are returned at resignation, dismissal or death and an additional death benefit is provided of one half of last year's salary in a lump sum. The usual options are allowed.

The contributions of the employees and the city are graduated according to age in such a way as to accumulate in case of average advancement, reserves to age 62 that would provide the annuities and pensions of the rate mentioned. The contributions range from 2.87% at age 20 to 6.37% at age 70, for men and from 2.94% to 6.31% in case of women. While there is therefore only a slight difference between the contributions of the men and women there is great difference as already stated between their benefits.

The city is to match with its normal contributions every contribution of the employee. In other words the city's contribution is not reduced as it is in the other systems by the fact of lapses of the city's contributions at withdrawals and deaths. The portion of the city's accumulation which is left over in the fund, when an employee withdraws from the fund or dies, is applied to the liquidation of the prior service liability and other liabilities of the system. In addition the city is to contribute on account of prior service at least $150,000 annually or as much more as may be necessary to cover the prior service payments of the year, until the reserves in the fund equal the value of all subsequent payments from the fund.

The system is to be administered by the Board of Administration which is composed of the Chairman of the Finance Committee of the Board of Supervisors, the Auditor, three members, elected by the membership of the system, and two citizens appointed by the Mayor, one to be an insurance official and one a bank officer.

CHAPTER VIII

SOUND PENSION BILLS ABOUT TO BECOME LAWS

Several sound pension projects incorporated in bill form are pending in various states. Three of these have met with such favorable response in the Legislatures of their respective states that their enactment seems very likely. These are the bills applying to Boston, the municipalities and counties of New York (New York City, excepted) and the city of Providence. Three other bills—those of New Jersey and Illinois municipalities and the city of Yonkers—for some reason or other were less fortunate and failed to progress very far, and one act,—that applying to Minneapolis, though a law has not been taken advantage of and still belongs to the realm of projects. Interesting as these four pension plans are, it is impossible because of lack of space to discuss them here. The reader is referred for their study to the official reports of New Jersey, Illinois and Yonkers and the Minnesota Act of 1919. The three bills, however, which are likely to be enacted will be described.

8. Boston.

The Boston Finance Commission framed a bill in 1921 intended to establish a sound retirement system for the employees not yet covered by any pension law and gradually extend to the entire city service. It passed both houses of the Legislature but met with a hitch before the Governor which caused it to be laid over for another year. It will probably be enacted in the session of 1922.

The system will cover (1) the clerks and other employees who have not been covered hitherto by any pension law (2) all new entrants in the police and fire departments and among the laborers and teachers and (3) such present employees in the latter departments and groups as choose to renounce the systems under which they are now covered and come into the new system. Membership is optional for present employees to the extent that any clerk who does not want to join may stay away by filing a notification that he does not want to become a member and any employee covered by another pension act may if he wishes to change to this system under conditions described. For all new entrants membership is compulsory.

Retirement is permitted anytime after reaching the age of sixty years or in case of disability before, a minimum of ten years of service, however, being required in case of ordinary disability. The members are to contribute 4 per cent of their salary which is to provide an annuity in accordance with the tables of mortality which have been prepared for the various occupational groups. The city is to provide a pension of an equivalent amount and also to make up with compound interest the contributions on its own account as well as on behalf of the employee for all years of prior service at the rate of 4 per cent of salary received by the employee in the past and provide an additional pension from accumulations thus obtained. The total pension part is not to exceed in any case half pay. For cases of ordinary disability the pension part is to be increased to such an amount as would have been provided had the employee continued at the same salary in the service until the age of sixty. Liberal accidental disability and accidental death benefits are provided and the contributions of the employees together with interest at 4% are to be refunded in cases of resignation, dismissal or ordinary death. The same options as in other systems are offered. The system is to operate on a full reserve basis with the accrued liabilities to be discharged in the course of about 25 years. The obstacle that arose in 1921 was caused by the objections of the Police Commissioner who demanded that the policemen be altogether excluded from the operation of the system. The Governor sent a word to the Legislature requesting it to reconsider the measure and eliminate the policemen but the sponsors of the measure felt that to exclude the latter would be a mistake. Before an agreement could have been obtained, the session ended.

This year (1922) the bill is again before the Legislature. It includes the policemen as it did the year before and it also includes the teachers

whom the authors of the measure did not include in 1921. The school committee and a large portion of the teachers, mainly the men and higher paid group for whom the present system is entirely inadequate, urged upon the Finance Commission the inclusion of the teachers.

The city will pay a normal contribution which will supply the pensions equal to the annuity and which discounting the lapses, will range from 1.65% salary in case of the laborers to 5.03% in case of the firemen. It will also pay an accumulated liability contribution (for prior service) about twenty-five years, ranging between 3½ and 6 per cent of the payroll; and it will pay the accidental pensions and administrative expenses.

9. *Municipalities and Counties of New York State.*

A bill passed by the New York Legislature of 1922 (Draper's A. 1912) and likely to become a law, provides a unified state system for the retirement of county and municipal employees other than those of New York City and those already covered by local pension funds. Under this act the employees of any county or municipality whose legislative body accepts the act, who are not covered by any existing pension fund, become subject to the provisions of the state employees' retirement system.

Membership is optional for all present employees and compulsory for all new entrants. The system would operate with respect to municipalities and counties in a way similar to that in which the state teachers retirement system operates in relation to the local school systems. Each municipality or county participating in the fund would transmit to it its contribution (the amount of which will be determined by actuaries on a prorata basis) as between the various local units and the contributions of its employees and when its employees retire their retirement allowances will be paid from this fund. The benefits and other provisions for these employees will be the same as those which obtain for state employees. The act furthermore forbids in a sweeping way the establishment of any further county or municipal pension systems.

If this act becomes a law, it will be the most far reaching undertaking ever made in the history of pension legislation in this country and one worthy of serious study in every state concerned with the problem of municipal pensions, for it affords the most radical solution of this problem.

10. *Providence.*

After a comprehensive study extending over a period of about two years, the Pension Committee of Providence prepared a bill and introduced in the Legislature in 1922 providing for the establishment of a retirement system covering all the employees of the city. The bill is favored by all concerned except by the policemen and firemen. If it is defeated this year, it will come for passage next year. Under the provisions of this bill retirement is to be granted for policemen and firemen at the age of 58 and for other employees at the age of sixty. The retirement from the city is to equal approximately 1¼% of the average salary of last 10 years multiplied by the number of years of service with the exception that only one half of the prior service is to be taken into account. The pension part of the allowance is fixed at $\frac{5}{8}$ of 1% of the salary for each year of creditable service. In case of disability after 10 years of service, a retirement allowance is granted at the rate of $\frac{2}{10}$ of the superannuation rate with a provision that where the service is less than fifteen years long at least 15 fractions at that rate will be granted, or the allowance will be brought to the regular retirement age. Disability caused in performance of duty is compensated by a pension of $\frac{2}{3}$ of the wage plus the annuity provided by the employee's own contributions, while death in performance of duty is compensated by a pension of half pay in addition to the employee's own contributions with interest. At resignation, dismissal or ordinary death the contributions of the employee are refunded with interest. Present employees who do not wish to be members may file a statement and be freed from membership in the system. All new entrants and those present employees who have not filed this statement automatically become members.

The contribution of the employees range according to entrance age (and occupation) between about 3% of salary and about 6%. The city will contribute a normal contribution of about 2.7% of the pay roll and a deficiency contribution to liquidate the accrued liabilities of about 2.5% of the pay roll annually or an aggregate of about 5¼ per cent subject to such readjustment as may be found necessary from time to time after actuarial valuation.

Appendix—Actuarial Tables

TABLE 1. COMPOUND INTEREST

The amount accumulated by a deposit of $1.00 paid at the beginning of each year at 4 % interest after a certain number of years.

Year	Amount	Year	Amount
1	$1.0400	26	$46.0842
2	2.1216	27	48.9676
3	3.2465	28	51.9663
4	4.4163	29	55.0849
5	5.6330	30	58.3283
6	6.8983	31	61.7015
7	8.2142	32	65.2095
8	9.5828	33	68.8579
9	11.0061	34	72.6522
10	12.4864	35	76.5983
11	14.0258	36	80.7022
12	15.6258	37	84.9703
13	17.2919	38	89.4091
14	19.0236	39	94.0255
15	20.8245	40	98.8265
16	22.6975	41	103.8196
17	24.6454	42	109.0124
18	26.6712	43	114.4129
19	28.7781	44	120.0294
20	30.9692	45	125.8706
21	33.2480	46	131.9454
22	35.6179	47	138.2632
23	38.0826	48	144.8337
24	40.6459	49	151.6671
25	43.3117	50	158.7738

TABLE 2. ANNUITY VALUES ON THE BASIS OF THE NEW YORK CITY EXPERIENCE

(Price of an annuity of $1. at various ages of retirement)

Age	Policemen	Firemen	Clerks	Laborers	Mechanics	Men Teachers	Women Teachers
55	$9.99	$10.19	$11.91	$11.81	$11.88	$10.23	$12.83
56	9.81	9.92	11.62	11.48	11.57	10.05	12.56
57	9.62	9.68	11.31	11.15	11.25	9.86	12.28
58	9.43	9.44	11.01	10.82	10.93	9.66	11.99
59	9.22	9.23	10.70	10.49	10.61	9.45	11.70
60	9.01	9.02	10.38	10.15	10.29	9.23	11.39
61	8.79	8.81	10.07	9.81	9.97	9.01	11.08
62	8.55	8.61	9.75	9.47	9.64	8.77	10.76
63	8.31	8.40	9.44	9.13	9.32	8.54	10.43
64	8.06	8.19	9.12	8.79	8.99	8.29	10.10
65	7.80	7.98	8.80	8.45	8.67	8.04	9.76
66	7.52	7.75	8.49	8.12	7.34	7.79	9.42
67	7.24	7.51	8.17	7.78	8.02	7.54	9.08
68	6.95	7.27	7.86	7.45	7.70	7.28	8.73
69	6.66	7.01	7.55	7.13	7.38	7.02	8.39
70	6.36	6.74	7.24	6.81	7.07	6.76	8.04

TABLE 3. EXPECTATION OF LIFE ON THE BASIS OF NEW YORK CITY EXPERIENCE

(Number of Years Employees Retiring at a Certain Age Would on the Average Live Thereafter)

Age	Policemen	Firemen	Clerks	Laborers	Mechanics	Men Teachers	Women Teachers
55	14.24	14.60	17.79	17.40	17.64	14.76	19.78
56	13.86	14.09	17.14	16.72	16.98	14.37	19.13
57	13.47	13.61	16.50	16.05	16.33	13.96	18.49
58	13.07	13.16	15.88	15.39	15.68	13.55	17.84
59	12.67	12.74	15.26	14.74	15.05	13.13	17.20
60	12.25	12.33	14.65	14.10	15.43	12.70	16.55
61	11.83	11.94	14.05	13.47	13.82	12.28	15.91
62	11.41	11.56	13.46	12.86	13.22	11.84	15.27
63	10.97	11.17	12.88	12.26	12.63	11.41	14.64
64	10.53	10.79	12.31	11.67	12.06	10.98	14.01
65	10.09	10.40	11.76	11.10	11.50	10.55	13.38
66	9.64	10.00	11.22	10.54	10.95	10.12	12.77
67	9.18	9.60	10.69	10.00	10.42	9.70	12.16
68	8.73	9.19	10.17	9.47	9.90	9.28	11.57
69	8.28	8.77	9.67	8.97	9.39	8.86	10.99
70	7.83	8.35	9.18	8.48	8.90	8.45	10.43

TABLE 4. EXPECTATION OF LIFE AND ANNUITY VALUES ON THE BASIS OF THE AMERICAN EXPERIENCE MORTALITY TABLE

(For Men and Women Alike)

Age	*Expectation of Life*	*Annuity Values*
55	17.40	.....
56	16.72	.....
57	16.05	.....
58	15.39	.....
59	14.74	.....
60	14.10	$10.66
61	13.47	10.29
62	12.86	9.93
63	12.26	9.57
64	11.67	9.20
65	11.10	8.84
66	10.54	8.49
67	10.00	8.14
68	9.47	7.79
69	8.97	7.44
70	8.48	7.10

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